

# **EXHIBIT B**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

WSOU INVESTMENTS, LLC D/B/A  
BRAZOS LICENSING AND  
DEVELOPMENT,

Plaintiff,

v.

CISCO SYSTEMS, INC.,

Defendant.

CIVIL ACTION NO. 6:21-CV-00128-ADA

JURY TRIAL DEMANDED

**DECLARATION OF DR. PAUL D. MARTIN IN SUPPORT OF BRAZOS'S MOTION  
TO COMPEL PRODUCTION OF SOURCE CODE FROM DEFENDANT CISCO**

1. My name is Dr. Paul D. Martin. I have been retained as an expert on behalf of Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development's ("Brazos") in the above-captioned litigation. I have been asked to submit this declaration in support of Brazos's Motion to Compel the Production of Source Code from Defendant Cisco.

**I. Summary of Qualifications**

2. I am a Senior Research Scientist and the Director of Firmware Security at Harbor Labs, a provider of software and hardware expertise and services. I hold B.S., M.S.E., and Ph.D. degrees from Johns Hopkins University, with all degrees, including my doctorate, being in computer science. I have approximately ten years of experience in the software industry. I have substantial experience in binary analysis and reviewing source code written in numerous languages. I am the primary inventor on numerous patents related to the design and implementation of software systems and I have published peer-reviewed research on these topics. I have designed and implemented source code and protocols used in shipping hardware and software products.

3. In February 2016, I joined Harbor Labs full-time as a research scientist. In January 2019, I was promoted to senior research scientist. At Harbor Labs, I manage client engagements and lead teams in the areas of security analysis and source code analysis. A substantial portion of my role at Harbor Labs is in supervising source code review teams as part of legal consulting engagements. As part of this work, I have reviewed software systems of varying sizes, often totaling in the millions or billions of lines of code. I have reviewed products in the security space, television-based set top boxes, network appliances, numerous web-based enterprise systems, email management systems, telephony products, embedded system bootloaders, social network platforms, and countless other products. I have conducted and/or supervised source code reviews in more than 48 cases.

4. I have reviewed source code written in languages including ARM Assembly, X86 Assembly, MIPS Assembly, C, C++ (including Visual C++), C#, Objective C, Java, Python, Perl, JavaScript, Swift, Kotlin, Ruby, COBOL and others. As part of my work at Harbor Labs, I have reverse-engineered many in order to discover exploitable vulnerabilities therein. I have written up proof-of-concept exploits in some of these cases. I have also been hired for my expertise in comparing source code to detect evidence of overlap using a methodology that I developed over the course of numerous engagements.

## **II. Relevance of and Need for Source Code for the Accused Cisco Products**

5. Source code is necessary to determine how the accused Cisco products work. That is because the ultimate source of truth for how a product works is in its implementation. While resources such as user guides, design documentation, and marketing documents are useful in understanding how a product is *likely* to work, such materials are not always comprehensive or accurate. Indeed, in my experience, these types of documentation can be incomplete, aspirational, outdated, and oversimplified. This is particularly true in cases where, as here, the documents

describe the design, implementation, or structure of system subcomponents, protocol messages, or internal processes.

6. Because technical documentation for software-related products is not always complete or accurate, it is necessary to review the source code of those products to understand how they operate. Given that source code is—by definition—the implementation of a product’s functionality, it is impossible for source code to be inaccurate.

7. As part of my analysis in this case, I have reviewed Cisco’s document production to date and Brazos’s infringement contentions and supporting documentation. I also have independently researched the accused Cisco products, examples of which are identified in Brazos’s infringement contentions.

8. Based on this review and analysis, it is evident that source code is necessary to sufficiently show the operation and function of the accused Cisco software platforms as implemented. By way of non-limiting example, source code would show at least the following functions and features that are not sufficiently described in Cisco’s technical documentation:

- the data structures that describe the configuration state, including which “context,” “custom-defined dictionary,” or “default dictionary” applies (as relevant to the ’216 Patent);
- the configuration of diameter peer in ISG (as relevant to the ’216 Patent);
- the 3GPP major and minor versions that can be used as contexts when choosing a definition (as relevant to the ’216 Patent);
- the Diameter versions that can be used as contexts (as relevant to the ’216 Patent);
- the standards supported by Cisco’s Mobile Multimedia Gateway Platform Diameter dictionaries (as relevant to the ’216 Patent);
- the contents of the various messages that are transmitted to and from the Serving General Packet Radio System (GPRS) Support Node (SGSN)—

e.g., the PDP Context Request Message and Activate PDP Context Accept message (as relevant to the '859 Patent);


- the contents of the APN field (as relevant to the '859 Patent)
- the manner in which the APN value is interpreted in software and how this value is mapped to a public or private address—e.g., the APN Restriction Value on GGSN, which has values 0-4 for different types of APNs (as relevant to the '859 Patent);
- the manner in which the mapping table for GGSN maps an APN Restriction Value to an APN (as relevant to the '859 Patent);
- the process for dynamic and static addressing—e.g., allocating an address from an address pool (as relevant to the '859 Patent);
- the change off that occurs between the Cisco SP Wi-Fi Access Points and Wireless Controllers (as relevant to the '106 Patent);
- the contents of the HTTP request that is sent to the Network Functions Repository (“NRF”) (as relevant to the '014 Patent).
- the manner in which different components of Cloud Core are implemented and how each Microservice communicates with one another (as relevant to the '014 Patent);
- the internal structure and level of the OSI model in which components are communicating (as relevant to the '014 Patent); and
- the manner in which mobile core integrates with the RAN, which would help identify which parts of Mobile Core are able to manage exchanges from various mobile devices (as relevant to the '014 Patent).

The above list is by no means exhaustive. I expressly reserve the right to identify other features and functions of the accused Cisco products for which source code is relevant.

9. In addition to being necessary to fill the above gaps in Cisco’s document production, source code would confirm that statements made in Cisco’s technical documentation are accurate for the accused Cisco products, *as those products are implemented*.

10. I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge and belief.

Executed on this 21st day of February, 2022, in Monrovia, Maryland.

  
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Paul D. Martin, Ph.D.